

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with HABAYlated avidins; \*\*\*avidin\*\*\* derivs.  
conjugated with 4'-hydroxyazobenzene-2-carboxylic acids and uses  
thereof)

IT 58-85-5, \*\*\*Biotin\*\*\*

RL: ARG (Analytical reagent use); BPR (Biological process); BSU  
(Biological study, unclassified); BUU (Biological use, unclassified); NUU  
(Other use, unclassified); ANST (Analytical study); BIOL (Biological  
study); PROC (Process); USES (Uses)  
(technol. using \*\*\*avidin\*\*\* and; \*\*\*avidin\*\*\* derivs.  
conjugated with 4'-hydroxyazobenzene-2-carboxylic acids and uses  
thereof)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

- (1) Anon; PATENT ABSTRACTS OF JAPAN 1996, V1996(05)
- (2) Ebersole, R; US 5182203 A 1993 CA NO good.
- \*(3) Green, N; METHODS IN ENZYMOLOGY 1990, V184, P51 CA
- \*(4) Morpurgo; JOURNAL OF THE AMERICAN CHEMICAL SOCIETY 1998, V120(49), P12734  
CA
- \*(5) Touin, G; JP 08012699 A 1996 CA
- (6) Yeda Res & Dev; WO 9700329 A 1997 CA ✓

L5 ANSWER 6 OF 9 CA COPYRIGHT 2004 ACS on STN

AN 129:160758 CA

ED Entered STN: 19 Sep 1998

TI Separation of immunoglobulin G from Cheddar cheese whey by \*\*\*avidin\*\*\*  
-biotinylated IgY chromatography

AU Kim, H.; Li-Chan, E. C. Y.

CS Dept. of Food Science, Univ. of British Columbia, Vancouver, BC, V6T 1Z4,  
Can.

SO Journal of Food Science (1998), 63(3), 429-434

908 226 8200

CODEN: JFDSA; ISSN: 0022-1147

PB Institute of Food Technologists

09/995304 x203

DT Journal

LA English

CC 17-1 (Food and Feed Chemistry)

AB High-purity Igs, which may be useful for immunol. supplementation of food  
products, were isolated from Cheddar cheese whey in a single-step process  
using \*\*\*avidin\*\*\* -biotinylated yolk Ig (IgY) column chromatog. Yolk  
\*\*\*antibodies\*\*\* specific to bovine IgG (IgYIgG) were biotinylated with  
biotinyl amidohehexanoic acid-N-hydroxysulfosuccinimide ester without any  
notable effect on the antigen binding activity, and coupled to  
\*\*\*immobilized\*\*\* \*\*\*avidin\*\*\* columns. The resulting  
\*\*\*avidin\*\*\* -biotinylated IgYIgG columns, with binding capacity of  
50-55% (wt./wt. percent ratio of IgG to \*\*\*immobilized\*\*\* IgYIgG),  
were used for the specific binding of IgG from cheese whey. Elution with  
a com. available eluent (Actisep) or 0.1 M glycine HCl buffer at pH 2.8  
yielded IgG with purity of 99% as detd. by radial immunodiffusion.

ST whey Ig isolation \*\*\*avidin\*\*\* \*\*\*biotin\*\*\* chromatog

IT Immunoglobulins

RL: ANT (Analyte); PUR (Purification or recovery); ANST (Analytical  
study); PREP (Preparation)

(G; IgG sepn. from Cheddar cheese whey by \*\*\*avidin\*\*\* -biotinylated  
yolk Ig chromatog.)

IT \*\*\*Affinity\*\*\* \*\*\*chromatography\*\*\*

Whey

(IgG sepn. from Cheddar cheese whey by \*\*\*avidin\*\*\* -biotinylated  
yolk Ig chromatog.)

RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Agraz, A; J Chromatogr A 1994, V672, P25 CA
- (2) Akita, E; J Dairy Sci 1998, V81, P54 CA
- (3) Akita, E; J Food Sci 1992, V57, P629 CA

- (4) Al-Mashikhi, S; J Dairy Sci 1988, V71, P1747 CA
- (5) Bayer, E; Egg Uses and Processing Technologies New Developments 1994, P158 CA
- (6) Bayer, E; FEBS Lett 1976, V68, P240 CA
- (7) Bayer, E; Methods in Enzymology 1990, V184, P138 CA
- (8) Butler, J; Molec Immunol 1993, V30, P1165 CA
- (9) de Jong, M; J Immunol Methods 1995, V184, P101 CA
- (10) Ebina, T; Med Microbiol Immunol 1985, V174, P177 MEDLINE
- (11) Fasman, G; Practical Handbook of Biochemistry and Molecular Biology 1992
- (12) Fukumoto, L; Food Res Int 1994, V27, P335 CA
- (13) Gassmann, M; The FASEB J 1990, V4, P2528 CA
- (14) Grandics, P; Biochemical Engineering VI 1990, V589, P148 CA
- (15) Green, N; Biochem J 1963, V89, P585 CA
- (16) Green, N; Biochem J 1970, V118, P67 CA
- (17) Green, N; Methods in Enzymology 1970, V18, P418 CA
- (18) Grossmann, A; J Immunol Methods 1995, V179, P243 CA
- (19) Hatta, H; Biosci Biotech Biochem 1993, V57, P450 CA
- (20) Hermanson, G; Immobilized Affinity Ligand Techniques 1992, P197
- (21) Jensenius, J; J Immunol Methods 1981, V46, P63 CA
- (22) Kawakami, H; J Dairy Sci 1987, V70, P752 CA
- (23) Kohanski, R; Methods in Enzymology 1990, V184, P194 CA
- (24) Kummer, A; Food Agric Immunol 1992, V4, P93 CA
- (25) Li-Chan, E; J Dairy Sci 1990, V73, P2075 CA
- (26) Li-Chan, E; J Dairy Sci 1997, V80, P1038 CA
- (27) Li-Chan, E; J Food Biochem Accepted Aug, 1997 1998
- (28) Liu, Y; Clin Chem 1985, V31, P202 CA
- (29) Malergue, F; J Med Virology 1995, V47, P43 MEDLINE
- (30) Martin, W; Can J Biochem Physiol 1958, V36, P153 CA
- (31) Meisel, H; Milchwissenschaft 1990, V45, P510 CA
- (32) Mushahwar, I; J Virol Methods 1987, V16, P1 CA
- (33) Nakai, S; Nutrition Quarterly 1991, V15(3), P52
- (34) Ntakarutimana, V; J Immunol Methods 1992, V153, P133 CA
- (35) Plant, A; Appl Biochem Biotech 1991, V30, P83 CA
- (36) Polson, A; Immunol Comm 1980, V9, P475 CA
- (37) Quesnel, A; Anal Biochem 1995, V231, P182 CA
- (38) Schubert, H; J Immunol Methods 1996, V189, P89 CA
- (39) Solum, N; Electrophoresis 1995, V16, P1408 CA
- (40) Tacket, C; New Engl J Med 1988, V318, P1240 CA
- (41) Thiele, C; Anal Biochem 1994, V218, P330 CA
- (42) Vaag, P; Cereal Chem 1987, V64(2), P59 CA
- (43) van Gijlswijk, R; J Immunol Methods 1996, V189, P117 CA
- (44) Verdoliva, A; J Chromatogr B 1995, V664, P175 CA
- (45) Whitney, R; Proteins of milk In Fundamentals of Dairy Chemistry, 3rd ed 1988, P81
- (46) Yokoyama, H; Am J Vet Res 1993, V54, P867 CA
- (47) Yolken, R; Pediatrics 1988, V81, P291 MEDLINE

L5 ANSWER 7 OF 9 CA COPYRIGHT 2004 ACS on STN  
AN 127:328674 CA  
ED Entered STN: 09 Dec 1997  
TI Streptavidin and \*\*\*avidin\*\*\* mutants with decreased affinity for  
\*\*\*biotin\*\*\* and their use in reducing background noise in assays  
IN Kopetzki, Eberhard; Muller, Rainer; Engh, Richard; Schmitt, Urban; Deger,  
Arno; Brandstetter, Hans  
PA Boehringer Mannheim G.m.b.H., Germany ✓  
SO Eur. Pat. Appl., 27 pp.  
CODEN: EPXXDW  
DT Patent  
LA German  
IC ICM C12N015-12  
ICS C12N015-31; C07K014-36; C07K014-465; G01N033-53  
CC 9-2 (Biochemical Methods)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 799890	A2	19971008	EP 1997-105408	19970401
	EP 799890	A3	19991222		
	R: DE, ES, FR, IT				
	DE 19637718	A1	19971002	DE 1996-19637718	19960916
	JP 10028589	A2	19980203	JP 1997-79632	19970331
	JP 3097905	B2	20001010		
	US 6312916	B1	20011106	US 1997-831399	19970401
	US 6391571	B1	20020521	US 1999-366862	19990804
	US 6417331	B1	20020709	US 1999-368772	19990805
	PRAI	DE 1996-19613053	A	19960401	
	DE 1996-19637718	A	19960916		
	US 1997-831399	A3	19970401		

# CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	EP 799890	ICM	C12N015-12
		ICS	C12N015-31; C07K014-36; C07K014-465; G01N033-53
AB	The title streptavidin and ***avidin*** mutants have affinities for ***biotin*** of <1010 L/mol. These mutants may be included in assays which depend upon streptavidin/ ***avidin*** - ***biotin*** interactions to reduce nonspecific binding of assay components to the streptavidin or ***avidin***. Thus, many sequence variants of core streptavidin were prep'd. and tested for ***biotin*** binding. Affinities of $7.7 \times 10^6$ - $3.6 \times 10^8$ were obsd. Decrease in noise in a sandwich immunoassay for anti-hepatitis C virus ***antibodies***, in which a streptavidin-coated solid phase and a biotinylated viral peptide were employed, was demonstrated. Addnl., use of ***immobilized*** streptavidin mutant for affinity chromatog. of biotinylated BSA and biotinylated Fab fragments was shown.		
ST	streptavidin ***avidin*** mutant ***biotin*** affinity; noise suppression assay streptavidin ***avidin*** ***biotin***		
IT	Immunoglobulins		
	RL: PUR (Purification or recovery); PREP (Preparation)		
	(Fab fragment, biotinylated; streptavidin and ***avidin*** mutants with decreased affinity for ***biotin*** and their use in reducing background noise in assays)		
IT	Cell		
	(expression host; streptavidin and ***avidin*** mutants with decreased affinity for ***biotin*** and their use in reducing background noise in assays)		
IT	Avidins		
	RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)		
	(mutants; streptavidin and ***avidin*** mutants with decreased affinity for ***biotin*** and their use in reducing background noise in assays)		
IT	Protein sequences		
	(of streptavidin mutants with reduced affinity for ***biotin*** )		
IT	Plasmids		
	(pSA-Leu25Trp/Ser45Trp/Leu110Trp; streptavidin and ***avidin*** mutants with decreased affinity for ***biotin*** and their use in reducing background noise in assays)		
IT	Plasmids		
	(pSA-Leu25Trp/Ser45Tyr/Leu110Trp; streptavidin and ***avidin*** mutants with decreased affinity for ***biotin*** and their use in reducing background noise in assays)		
IT	Plasmids		
	(pSA-Leu25Trp; streptavidin and ***avidin*** mutants with decreased affinity for ***biotin*** and their use in reducing background noise in assays)		
IT	Plasmids		

. (pSA-Leu27Arg/Ser45Arg/Leu110Trp; streptavidin and \*\*\*avidin\*\*\* mutants with decreased affinity for \*\*\*biotin\*\*\* and their use in reducing background noise in assays)

IT Plasmids (pSA-Leu27Arg/Ser45Arg/Tyr120Ala; streptavidin and \*\*\*avidin\*\*\* mutants with decreased affinity for \*\*\*biotin\*\*\* and their use in reducing background noise in assays)

IT Plasmids (pSA-Ser27Arg/Ser45Arg; streptavidin and \*\*\*avidin\*\*\* mutants with decreased affinity for \*\*\*biotin\*\*\* and their use in reducing background noise in assays)

IT Plasmids (pSA-Ser27Arg; streptavidin and \*\*\*avidin\*\*\* mutants with decreased affinity for \*\*\*biotin\*\*\* and their use in reducing background noise in assays)

IT Plasmids (pSA-Ser45Arg; streptavidin and \*\*\*avidin\*\*\* mutants with decreased affinity for \*\*\*biotin\*\*\* and their use in reducing background noise in assays)

IT Plasmids (pSA-Ser45Trp/Leu110Trp; streptavidin and \*\*\*avidin\*\*\* mutants with decreased affinity for \*\*\*biotin\*\*\* and their use in reducing background noise in assays)

IT Plasmids (pSA-Ser45Tyr/Leu110Trp; streptavidin and \*\*\*avidin\*\*\* mutants with decreased affinity for \*\*\*biotin\*\*\* and their use in reducing background noise in assays)

IT Plasmids (pSA-Trp120Ala; streptavidin and \*\*\*avidin\*\*\* mutants with decreased affinity for \*\*\*biotin\*\*\* and their use in reducing background noise in assays)

IT Immunoassay (sandwich; streptavidin and \*\*\*avidin\*\*\* mutants with decreased affinity for \*\*\*biotin\*\*\* and their use in reducing background noise in assays)

IT Albumins, preparation  
RL: PUR (Purification or recovery); PREP (Preparation)  
(serum, biotinylated; streptavidin and \*\*\*avidin\*\*\* mutants with decreased affinity for \*\*\*biotin\*\*\* and their use in reducing background noise in assays)

IT \*\*\*Affinity\*\*\* \*\*\*chromatography\*\*\*  
(streptavidin and \*\*\*avidin\*\*\* mutants with decreased affinity for \*\*\*biotin\*\*\* and their use in reducing background noise in assays)

IT Nucleic acids  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(streptavidin and \*\*\*avidin\*\*\* mutants-encoding; streptavidin and \*\*\*avidin\*\*\* mutants with decreased affinity for \*\*\*biotin\*\*\* and their use in reducing background noise in assays)

IT 150679-71-3DP, 13-139-Streptavidin [methionyl] (Streptomyces avidinii), mutants  
RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)  
(amino acid sequence; streptavidin and \*\*\*avidin\*\*\* mutants with decreased affinity for \*\*\*biotin\*\*\* and their use in reducing background noise in assays)

IT 197810-40-5P 197810-41-6P 197810-42-7P 197810-43-8P 197810-44-9P  
197810-45-0P 197810-46-1P 197810-47-2P 197810-48-3P 197810-49-4P  
197810-50-7P 197810-51-8P  
RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)  
(amino acid sequence; streptavidin and \*\*\*avidin\*\*\* mutants with

decreased affinity for \*\*\*biotin\*\*\* and their use in reducing background noise in assays)

IT 9013-20-1DP, Streptavidin, mutants

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)

(streptavidin and \*\*\*avidin\*\*\* mutants with decreased affinity for \*\*\*biotin\*\*\* and their use in reducing background noise in assays)

IT 58-85-5, \*\*\*Biotin\*\*\*

RL: ARU (Analytical role, unclassified); PEP (Physical, engineering or chemical process); ANST (Analytical study); PROC (Process)

(streptavidin and \*\*\*avidin\*\*\* mutants with decreased affinity for \*\*\*biotin\*\*\* and their use in reducing background noise in assays)

L5 ANSWER 8 OF 9 CA COPYRIGHT 2004 ACS on STN

AN 124:307894 CA

ED Entered STN: 29 May 1996

TI \*\*\*Biotin\*\*\* -labeled and photoactivatable aldosterone and progesterone derivatives as ligands for \*\*\*affinity\*\*\* \*\*\*chromatography\*\*\*, fluorescence immunoassays and photoaffinity labeling

AU Eisen, Christoph; Meyer, Christiane; Dressendoerfer, Regina; Strasburger, Christian; Decker, Heinz; Wehling, Martin

CS Medizinische Klinik, University Munich, Germany

SO European Journal of Biochemistry (1996), 237(2), 514-18

CODEN: EJBCAI; ISSN: 0014-2956

PB Springer

DT Journal

LA English

CC 2-4 (Mammalian Hormones)

AB New derivs. of progesterone and aldosterone were synthesized and functionally tested with com. available \*\*\*antibodies\*\*\*. The covalent labeling of \*\*\*antibodies\*\*\* specific for aldosterone and progesterone was detected by SDS-PAGE anal. and subsequent autoradiog. after using 3-(O-carboxymethyl)oximino-(3-[125I]iodo-4-azidosalicylamidobutylamine) derivs. of aldosterone and progesterone, resp., as photoactivatable radioligands. Labeling was not obsd. in the presence of an excess of the unlabeled steroid. Aldosterone was labeled with \*\*\*biotin\*\*\* and used as a tracer in a time-resolved fluorescence immunoassay. The nonradioactive tracer is highly selective for its \*\*\*antibody\*\*\*-binding site, with almost no detectable cross-reactivity for other steroids. \*\*\*Biotin\*\*\*-labeled progesterone was \*\*\*immobilized\*\*\* by \*\*\*avidin\*\*\*-agarose and used for affinity chromatog. This yielded a more than 20-fold enrichment of an anti-progesterone polyclonal \*\*\*antibody\*\*\*. These results demonstrate that derivs. of steroids are particularly useful for the development of nonradioactive assays for the detn. of natural steroids and may be also useful for the detection of specific binding sites in biol. material such as plasma membranes.

ST aldosterone progesterone photoactivatable deriv photoaffinity labeling

IT Photoaffinity labeling

( \*\*\*biotin\*\*\* -labeled and photoactivatable aldosterone and progesterone derivs. as ligands for affinity chromatog., fluorescence immunoassays and photoaffinity labeling)

IT Immunoassay

(fluorescence, \*\*\*biotin\*\*\* -labeled and photoactivatable aldosterone and progesterone derivs. as ligands for affinity chromatog., fluorescence immunoassays and photoaffinity labeling)

IT 52-39-1, Aldosterone 57-83-0, Progesterone, analysis

RL: ANT (Analyte); ANST (Analytical study)

( \*\*\*biotin\*\*\* -labeled and photoactivatable aldosterone and progesterone derivs. as ligands for affinity chromatog., fluorescence immunoassays and photoaffinity labeling)

IT 176049-68-6P 176049-69-7P 176049-71-1P 176049-72-2P

RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST

(Analytical study); PREP (Preparation); USES (Uses)  
 ( \*\*\*biotin\*\*\* -labeled and photoactivatable aldosterone and progesterone derivs. as ligands for affinity chromatog., fluorescence immunoassays and photoaffinity labeling)

IT 68-12-2, N,N-Dimethylformamide, reactions 538-75-0, N,N'-Dicyclohexylcarbodiimide 6066-82-6, N-Hydroxysuccinimide 109276-34-8, Biotinamidocaproylhydrazide 176049-73-3, 4-(p-Azidosalicylamido)butylamine  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 ( \*\*\*biotin\*\*\* -labeled and photoactivatable aldosterone and progesterone derivs. as ligands for affinity chromatog., fluorescence immunoassays and photoaffinity labeling)

IT 50909-89-2P, Progesterone-3-(o-carboxymethyloxime) 55482-95-6P, Aldosterone-3-(o-carboxymethyloxime)  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 ( \*\*\*biotin\*\*\* -labeled and photoactivatable aldosterone and progesterone derivs. as ligands for affinity chromatog., fluorescence immunoassays and photoaffinity labeling)

IT 105532-89-6P 176049-70-0P 176049-74-4P 176049-75-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 ( \*\*\*biotin\*\*\* -labeled and photoactivatable aldosterone and progesterone derivs. as ligands for affinity chromatog., fluorescence immunoassays and photoaffinity labeling)

L5 ANSWER 9 OF 9 CA COPYRIGHT 2004 ACS on STN  
 AN 115:45350 CA  
 ED Entered STN: 10 Aug 1991  
 TI \*\*\*Avidin\*\*\* column as a highly efficient and stable alternative for \*\*\*immobilization\*\*\* of ligands for \*\*\*affinity\*\*\* \*\*\*chromatography\*\*\*

AU Bayer, Edward A.; Wilchek, Meir  
 CS Dep. Biophys., Weizmann Inst. Sci., Rehovot, 76100, Israel  
 SO Journal of Molecular Recognition (1990), 3(3), 102-7  
 CODEN: JMORE4; ISSN: 0952-3499

DT Journal  
 LA English  
 CC 9-3 (Biochemical Methods)  
 AB The \*\*\*avidin\*\*\* / \*\*\*biotin\*\*\* system was applied as a general mediator in the adsorption/desorption or \*\*\*immobilization\*\*\* of biol. active macromols. to solid supports. In this context, model biotinylated proteins (lectins and \*\*\*antibodies\*\*\* ) were attached to \*\*\*avidin\*\*\* -coupled Sepharose. As examples for affinity chromatog., peanut agglutinin and anti-transferrin \*\*\*antibody\*\*\* were used to isolate asialofetuin and transferrin, resp. The capacity and product yields were significantly better than those achieved with conventional affinity chromatog. on CNBr-activated Sepharose columns contg. the same lectin or \*\*\*antibody\*\*\* . Moreover, the columns were characterized by improved stability properties exhibiting remarkably low levels of leakage.

ST affinity chromatog \*\*\*avidin\*\*\* column ligand \*\*\*immobilization\*\*\*  
 ; biotinylated protein \*\*\*immobilization\*\*\* affinity chromatog

IT \*\*\*Immobilization\*\*\* , biochemical  
 (of biotinylated \*\*\*antibodies\*\*\* and lectins, on \*\*\*avidin\*\*\* /Sepharose column, for affinity chromatog.)

IT Antigens  
 Glycoproteins, preparation  
 Transferrins  
 RL: PUR (Purification or recovery); PREP (Preparation)  
 (purifn. of, by affinity chromatog. with \*\*\*immobilized\*\*\* ligands on \*\*\*avidin\*\*\* column)

IT Agglutinins and Lectins  
 \*\*\*Antibodies\*\*\*  
 RL: ANST (Analytical study)

(reaction products with \*\*\*biotin\*\*\* , \*\*\*immobilization\*\*\* of,  
on \*\*\*avidin\*\*\* -coupled Sepharose affinity column)  
IT Chromatography, column and liquid  
(affinity, for antigen and glycoprotein purifn., with  
\*\*\*immobilized\*\*\* biotinylated ligands)  
IT Chromatography, column and liquid  
(affinity, stationary phases, \*\*\*avidin\*\*\* -coupled Sepharose as,  
for glycoprotein and antigen purifn., \*\*\*immobilized\*\*\*  
biotinylated ligands in)  
IT Fetuins  
RL: PUR (Purification or recovery); PREP (Preparation)  
(asialo-, purifn. of, by affinity chromatog. with \*\*\*immobilized\*\*\*  
ligands on \*\*\*avidin\*\*\* column)  
IT Avidins  
RL: ANST (Analytical study)  
(reaction products, with Sepharose, biotinylated proteins  
\*\*\*immobilization\*\*\* on, for affinity chromatog.)  
IT 9012-36-6D, Sepharose, reaction products with \*\*\*avidin\*\*\*  
RL: ANST (Analytical study)  
(biotinylated proteins \*\*\*immobilization\*\*\* on, for affinity  
chromatog.)  
IT 66640-86-6, \*\*\*Biotin\*\*\* hydrazide 134778-27-1  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with \*\*\*antibodies\*\*\* )  
IT 35013-72-0  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with lectin or \*\*\*antibodies\*\*\* )

=> logoff y

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
157.72	157.93

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-48.84	-48.84

CA SUBSCRIBER PRICE

STN INTERNATIONAL LOGOFF AT 16:50:56 ON 16 NOV 2004